

| Indicator | Availability of Data/Information | Frequency of Updates | Geography of the Indicator (County, Municipality, Region, State) | Empirical Data vs. Derived Analysis | What does the indicator tell us? What Goal is it Accomplishing? | Issues with Indicator | Who is responsible for Reporting? | Workgroup Recommendation |
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| <b>1. Housing Choices, including affordability:</b>   |  |                                    |                             |                  |   |  |   |  |
| <b>1. Geographic Measures of Opportunity-</b> Mapping based on census tract level data pertaining to economic opportunities, mobility, neighborhood health, and education quality to provide an opportunity frame of analysis alongside housing indicators.   | DHCD, Census, MD School Report Cards, etc.   | 3-5 years                          | Census Tract                | Derived Analysis | CPHA believes one key question for smart growth is, “Can everyone share in the benefits of smart growth?” If housing growth in higher opportunity areas is all unaffordable, and if all affordable housing is concentrated in areas of lower economic opportunity, then how will citizens of <b>all</b> income levels have access to the housing choices and options we strive for in Maryland's smart growth vision for housing? | No Consensus Reached on This Item. DHCD is opposed to using an index as part of this indicator process for many reasons but is open to discussing it as a separate project. CPHA believes that the Task Force should commit now to undertaking such a process and including such a measure in the smart growth housing indicators. | DHCD or contracted academic institution | No consensus on this indicator. Recommended for further consideration. |
| CPHA / CBF Finding ↓  |  |                                    |                             |                  |   |  |   |  |
| <b>2. Finding:</b> Building permits are a reliable data source for monitoring new growth, construction & housing development and limited info is currently collected.<br><b>Recommendation:</b> CPHA and CBF propose that the State consider working with municipalities to revise building permits to include new information useful for reporting new growth. This could be especially helpful in light of data lost through decennial census switch to short form. Additional information could include: 1) amount of impervious surface created 2) For residential projects: a) (Size): Single family: # of BR; Multi family, # of units, # of BR per units. c) Owner intent: owner occupy, sale, rent, subsidized rent. D) is dwelling will be accessible for persons with disabilities. | TBD  | TBD                                | County and Local Government | Empirical        | Indicates greater detail about type of growth taking place and what surface changes are being made in development process.  | Presented as finding and recommendation for further consideration.   | Local Governments                       | Presented as finding and recommendation for further consideration.     |
| 3. Housing Unit Characteristics<br>a. Number / Percent Occupied vs. Vacant Housing Units<br>b. Number/Percent Single Family, Multifamily, Mobile Home, Other<br>c. Vacancy Rates -<br><u>Homeowner/Rental</u>   | Decennial Census and ACS data with different reporting cycles depending on population size | Decennial and 1, 3 or 5 year ACS   | State, County               | Empirical        | Provides an overview of basic housing characteristics   | 1. Annual ACS data is available for 16 Maryland counties, 3-year averages for 23 (excluding Kent) and 5-year averages for all. 2. It should also be noted that data cannot be compared between the different reporting cycles  | DHCD                                    | Good Indicator, but information is limited or difficult to collect.    |
| 4. Rental Characteristics - Number and percentage of existing / total rental housing units that are <u>affordable at 30/60/80 % of AMI.</u>   | ACS Data for counties with different reporting cycles.                                     | 1 year or 3 and five-year averages | State, County               | Empirical        | Indicator provides snap shot of affordable housing opportunities on the rental side. Helps identify the available housing choices in local communities  | See note above regarding ACS data. Data is collected and available by price range rather than AMI. It may require picking price points.  | DHCD                                    | Good Indicator, but information is limited or difficult to collect.    |
| 5. Rental Characteristics - Rental Units by Bedroom Sizes (0-1 BR, 2 BR, 3 BR, 4+BR)  | ACS Data for counties with different reporting cycles.                                     | 1 year or 3 and five-year averages | State, County               | Empirical        | Identifies scope of housing options for families  | ACS has the number of renter/owner units by bedroom sizes  | DHCD                                    | Good Indicator, but information is limited or difficult to collect.    |
| 6. For Sale Characteristics<br>a. Annualized Housing Sales Activity / Volume by County<br>b. Number / Percentage of homes at various price increments or for sale below X price target by County<br><u>(30/60/80/120) % of AMI.</u>   | MRIS and MDP   | Monthly and Yearly                 | State, County               | Empirical data   | Identifies the market supply of affordable/workforce for sale housing. A central indicator to identify local affordability.   | Data is collected and available by price point rather than AMI. It may require picking price points.   | DHCD                                    | Good Indicator, but information is limited or difficult to collect.    |
| 7. Foreclosure Rate   | Data is assembled by DHCD on a county wide and zip code level.                             | Monthly                            | Zip Code and County         | Empirical Data   | Identifies market/household challenges, health of communities, and potential redevelopment opportunities.   | Indicator is relevant to current events but is not central to ongoing growth debate.   |   | No consensus on this indicator   |

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| 8. New residential building permits valued over \$50,000 geo coded by type (single family attached / detached; two family; multi-family; mobile homes; other shelter; mixed use); inside and outside PFAs   | BMC (PFA data required by law for locals to submit and be in place by 2011)  | Annual               | State and County   | Empirical   | Identifies   |   |                                   |   |
| 9. Subsidized & Affordable Housing Inventory /Demand: Number of Subsidized rental housing opportunities - existing & new. Where possible, include breakout of unit details such as affordability levels (30/60/80% AMI), number of bedrooms (0-1, 2, 3, 4+), accessible units designated for the elderly and non-elderly disabled as defined by FHA (Fair Housing Act) or UFAS (Uniform Federal Accessibility Standards) accessibility standards. The subsidized total would include:<br>i. Public Housing Units (From 25 Housing Authorities) and Wait List<br>ii. Affordable Rental (From DHCD, HUD and other properties) and Vacancy Rate<br>iii. Housing Choice Vouchers (from 26 housing authorities) and waiting list<br>iv. Other Affordable Units (such as from MPDU Programs - include HO units) | DHCD survey/research of HUD, Housing Authorities, & Local Governments.   | Yearly               | State, County, zip code.   | Empirical   | Indicates available supply and location (where possible) of affordable rental housing.   | CPHA would like unit characteristics and location if possible. DHCD knows that the availability and accessibility of the information is limited. The data is maintained by a range of government entities - DHCD does not have oversight over all affordable housing in MD. It requires significant staff time to solicit and assemble. If data is not available from the other entities, there is no stick to make them get it or do it. There may be a confidentiality issue with this indicator. Data is difficult to collect. | DHCD                              | OK. Recommend further study because unit type and location may be difficult to collect. |
| 10. <b>Housing production / growth</b> - New residential building permits geo coded by type, if possible (single family attached / detached; two fam; multi-fam; mobile homes; other shelter; mixed use); inside and outside PFAs   | Residential permit data in and out of the PFA required by House Bill 295.  | Annual               | State, County.   | Empirical   | Identifies extent and type of new construction activities.   | Notes: HB 295 requires reporting on new lots and issuance of (all) residential and commercial building permits inside and outside PFAs. BMC collects bldg permit data to building type specificity, but on permits valued at \$10,000 or more   | Local Governments                 | OK, recommend further study on availability of building permit data.                    |
| <b>2. The Impact of Growth on the Environment, including Land, Air, &amp; Water:</b>  |  |                      |  |   |  |   |                                   |   |
| 11. Air Quality (NO <sub>2</sub> , SO <sub>2</sub> , CO, Pb, O <sub>3</sub> , Fine particulates   | Available from MDE   | Monthly              | Available for 26 stations around the State. Coarsely, regional   | Empirical   | Air Quality. GOAL: Quality of Life and Environmental Protection  | MDE monitors 26 stations around the State. Not every county has a station, and they are clustered around Baltimore. Much of Maryland's air pollution comes from other states; quality is affected by weather and winds; factors other than growth (pollution control programs, the economy) have large impact.  | MDE-ARMA                          | Bad Indicator, but nothing better for air quality. VMT may be a better indicator.       |
| 12. Amount of impervious surface  | Changes in impervious cover could be captured from development plans and building permits during the development review process. | Annually             | Municipality, County, watershed                                  | Empirical Data from building permits.   | The percent impervious surface in a watershed correlates with the health of aquatic resources. The watersheds with the highest values for this indicator offer the greatest potential for implementation of best management practices whose objective is to filter runoff and moderate runoff peak velocities. GOAL: Environmental Protection. | Not readily available at this time.   | Local governments                 | Good Indicator, but information is limited or difficult to collect.                     |
| 13. New and Existing septic systems with nitrogen removal technology  | Available from MDE/Local Governments   | Annual               | County   | Number of septic systems is empirical; pounds of nitrogen released could be derived | Tells us the number of existing septic systems that were upgraded and new septsics that have nitrogen removal technology. This is an indicator of environmental protection. GOAL: Environmental Protection   |   | MDE/Local Governments             | No consensus on this indicator  |

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| 14. Acres of developed land by primary stormwater treatment type: structural/non-structural, connected/disconnected, ponds/LID, and acres compliant with SWM Act. | Could be captured during development review process or NPDES inventories.   | Annual               | Municipality and County  | Empirical                           | When redeveloped, areas must institute stormwater control, although less stringent than those applicable to new development. GOAL: Environmental Protection and Resource Conservation  |   | Not clear.                        | No consensus on this indicator                                      |
| 15. Acres of previously developed land redeveloped under new stormwater management regulations  | Not clear   | Annual               | Municipality and County  | Empirical                           | When redeveloped, areas must institute stormwater control, although less stringent than those applicable to new development. GOAL: Environmental Protection and Resource Conservation  |   | Not clear.                        | Good Indicator, but information is limited or difficult to collect. |
| 16. Acres of newly developed land under new stormwater management regulations   | Not clear   | Annual               | Municipality and County  | Empirical                           | When developed, areas must institute stormwater control, GOAL: Environmental Protection and Resource Conservation  |   | Not clear.                        | Good Indicator, but information is limited or difficult to collect. |
| 17. Percentage of streams sampled with each score (1 through 5) on the Benthic Index of Biotic Integrity (IBI) (non-tidal)  | Available from DNR/RAS/MANTA  | Every 3 to 5 years   | MD 8 digit watershed   | Empirical                           | Health of streams. GOAL: Environmental Protection and Resource Conservation  | Sampling is random and may not be representative. Different streams may be sampled each time. Tenuous relationship to smart growth.   | DNR                               | More study or seek other indicators                                 |
| 18. Percentage of streams sampled with each score (1 through 5) on the Non-tidal Fish Index of Biotic Integrity (IBI)   | Available from DNR/RAS/MANTA  | Every 3 to 5 years   | MD 8 digit watershed   | Empirical                           | Health of streams. GOAL: Environmental Protection and Resource Conservation  | Sampling is random and may not be representative. Different streams may be sampled each time. Tenuous relationship to smart growth.   | DNR                               | More study or seek other indicators                                 |
| 19. Acres retrofit with stormwater controls   | Available from MDE for jurisdictions covered by MS4 permits                 | Annual               | County   | Empirical                           | A great deal of development occurred before the stormwater programs began. Retrofitting is (or is going to be) required in Municipal Separate Storm Sewer System Permits (MS4 Permits). GOAL: Environmental Protection   | This indicator is not directly related to growth, but it does represent investment in land management to restore the environment. It may not be available in all jurisdictions. | MDE                               | More study or seek other indicators                                 |
| <b>3. The Fiscal Cost of Growth:</b>  |   |                      |  |                                     |  |   |                                   |   |
| 20. Police  | County/Municipalities   | Annual               | County/Many municipalities                                       | Empirical                           | Predominant Public Service with all growth   | Ability to maintain 2.5 officers per 1,000 population May need to be changed to address fiscal cost instead of population ratio.  | Counties/Many municipalities      | Good Indicator, but information is limited or difficult to collect. |
| 21. Annexation by Municipalities  | All Municipalities  | Annual               | Municipalities   | Empirical                           | With HB1141 Requirements, Capacity/Density   |   | Municipalities                    | More study or seek other indicators                                 |
| 22. School Construction   | Counties  | Annual               | Counties   | Empirical                           | Adequacy of facilities based on growth/carrying capacity   | Inconsistency of acceptable capacity levels from county to county school system.  | Counties                          | More study or seek other indicators                                 |
| 23. Park Acquisition and Development  | Counties/Municipalities/DNR   | Annual               | County/City/state/Regional                                       | Empirical                           | Ability to meet national standards in growth   | Non-standardization of parks, better held to counties and municipalities only, except DC Suburban   | County/City/State/Regional        | More study or seek other indicators                                 |
| 24. Per capita capital spending inside and outside the PFA  | DLS/Local Governments   | Annual               | County/Municipality  | Empirical                           | Over time, this indicator could indicate a trend about growth-related spending inside and outside PFAs   | Will take time to show trends   | Counties Municipalities           | More study or seek other indicators                                 |
| <b>5. The Impact of Transportation on Growth:</b>   |   |                      |  |                                     |  |   |                                   |   |
| 25. VMT per capita  | MDOT/SHA  | Annual               | Statewide/region   | Derived estimates                   | VMT/per capita indicates the travel effect/behavior of different growth patterns. Smart Growth land development patterns, which are characterized by mixed-use, compact, and walkable with good quality designs, tend to produce fewer VMT/per capita because residents in these communities travel shorter distances, and use transit, walking and biking more to their destinations thousing units reduce the need for motor vehicle travel and reduce energy consumptions |   | MDOT/SHA                          | No consensus on this indicator.                                     |
| 26. Number of housing units, number of jobs within 1/2 mile of a transit stop   | See above re: jobs data. Transit data available from MTA.                   | Annual               | State / County   | Derived from empirical              | Indicates transit accessibility in communities. Goal: increasing transit accessibility   | Housing unit information by 1/2 mile radius does not include multi-family dwellings. Jobs data is incomplete and sometimes inaccurate.  | MDOT/MDP                          | Good Indicator, but information is limited or difficult to collect. |
| 27. Number of dwelling units, square footage of industrial/commercial inside and outside the PFA within 5 miles of a highway interchange.                         | Would require geo-coded building permit data. (SHA/MDP/County/Municipality) | Annual               | County/region/municipality                                       | Empirical                           | It indicates a degree of sprawl or Smart Growth due to transportation accessibility improvement.   | Difficulties getting data together.   | MDOT/MDP                          | Good Indicator, but information is limited or difficult to collect. |

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| 28. Number of Access Permits Outside/Inside PFA and/or number of centerline miles of uncontrolled access roads. | SHA can provide for county level    | Annual               | County/region/municipality                                       | Empirical   | An increase would measure undesirable growth patterns outside the PFA   | Can counties provide such data too?  |                                   | No consensus on this indicator.                                     |
| 29. #DU or SF of office/commercial permitted that DID and did NOT require mitigation on county or state road.   | Counties/SHA                        | Annual               | County/Municipality  | Empirical   | Could provide indication of added strains to state transportation network. (Cumulative effects of smaller projects that are not mitigated).   | Building permit data at local level is key.  |                                   | Good Indicator, but information is limited or difficult to collect. |
| 30. Pedestrian Accessibility(Median Block size)   | ?                                   |                      | municipality/large activity centers/PFAs                         | derived analysis  | shows walkability. Goal: increasing walkability in PFAs   | data collection  |                                   | Good Indicator, but information is limited or difficult to collect. |
| 31. Road/Street Connectivity (centerline miles/Sq Mile, intersections/Sq mile)                                  |                                     | ?                    | PFAs   | derived analysis  | shows Smart Growth street patterns  | data collection  |                                   | Good Indicator, but information is limited or difficult to collect. |
| 32. Percent use of park and ride facilities   | SHA                                 | Annual               | (per facility(?))  | Empirical   | Use of transportation alternatives.   | Tenuous relationship to smart growth.  | MDOT                              | More study or seek other indicators                                 |
| 33. Miles of marked bike lanes in PFA areas   | County/SHA                          | Annual               | County/PFA   | Empirical   | Indicates investment in alternative transportation modes.   | Tenuous relationship to smart growth.  | MDOT                              | More study or seek other indicators                                 |
| 6. The Impact of Growth on Business, including Job Creation, Fiscal Impact, Agribusiness, Toursim, & Forestry:  |                                     |                      |  |   |   |  |                                   |   |
| 34. Jobs in and out of the PFA  | DLLR (ES-202)/MDP/local governments | Annually             | County   | Empirical   | This is a measure of patterns of non-residential growth over time.  | Data accuracy and availability   | MDP/County                        | Good Indicator, but information is limited or difficult to collect. |
| 35. Tax revenues by source  | Census; Comptroller's Office        | Annual               | State/County   | Empirical   | Revenues and expenditures can indicate the general economic picture of the State  |  | County                            | More study or seek other indicators                                 |
| 36. Expenditure data by type  | Census; Comptroller's Office        | Annual               | State/County   | Empirical   |   |  |                                   |   |
| 37. Employment by industry  | U.S. BLS, U.S. BEA, DLLR (ES-202)   | Quarterly/Annually   | County   | BLS and BEA data are derived, but ES202 data are supposedly empirical | We could track the relative strength of specific industries. We may find trends showing that certain industries decline or grow faster or slower in those counties with higher rates of population growth or new development. | We could highlight a relationship between growth and employment/wage trends, but it wouldn't establish a causal relationship as anticipated by the indicator bill's wording.   | County                            | More study or seek other indicators                                 |
| 38. Wages by industry (total, average weekly wage per worker, and relative to state totals)                     | U.S. BLS, U.S. BEA, DLLR (ES-202)   | Quarterly/Annually   | County   | BLS and BEA data are derived, but ES202 data are supposedly empirical |   | There are some concerns about the ES-202 data, though generally they are considered reliable.<br><br>Could possibly do a shift-share analysis to breakdown the cause of any change in employment to changes in the national economy, changes in the industry nationally, or changes locally. | County                            | More study or seek other indicators                                 |
| 39. Number of establishments by industry  | DLLR (ES-202)                       | Quarterly/Annually   | County   | Empirical   |   |  | County                            | More study or seek other indicators                                 |